

## WEST Search History

DATE: Tuesday, September 30, 2003

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ</i>			
L4	5556776	4	L4
L3	L2 with sucrose	1	L3
L2	pts near3 ii	6223	L2
<i>DB=USPT; PLUR=YES; OP=ADJ</i>			
L1	pts near3 ii	694	L1

END OF SEARCH HISTORY

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**Search Results - Record(s) 1 through 4 of 4 returned.**☐ 1. Document ID: US 20030049804 A1

L4: Entry 1 of 4

File: PGPB

Mar 13, 2003

PGPUB-DOCUMENT-NUMBER: 20030049804  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030049804 A1

TITLE: Corynebacterium glutamicum genes encoding metabolic pathway proteins

PUBLICATION-DATE: March 13, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Pompejus, Markus	Freinsheim		DE	
Kroger, Burkhard	Limburgerhof		DE	
Schroder, Hartwig	Nussloch		DE	
Zelder, Oskar	Speyer		DE	
Haberhauer, Gregor	Limburgerhof		DE	
Kim, Jun-Won	Seoul		KR	
Lee, Heung-Shick	Seoul		KR	
Hwang, Byung-Joon	Seoul		KR	

US-CL-CURRENT: 435/115; 435/183, 435/252.3, 435/320.1, 435/69.1, 536/23.2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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RMK	Draw Desc	Image
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☐ 2. Document ID: US 5556776 A

L4: Entry 2 of 4

File: USPT

Sep 17, 1996

US-PAT-NO: 5556776  
DOCUMENT-IDENTIFIER: US 5556776 A

TITLE: Sucrase gene derived from coryneform bacteria

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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RMK	Draw Desc	Image
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☐ 3. Document ID: EP 724017 A2 BR 9600268 A FR 2729970 A1 SK 9600112 A3 JP 08196280 A ZA 9600656 A EP 724017 A3

L4: Entry 3 of 4

File: DWPI

Jul 31, 1996

DERWENT-ACC-NO: 1996-343532  
DERWENT-WEEK: 199806  
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TITLE: Sucrase gene from Coryneform bacteria - used to prepare recombinant microorganisms for improved prodn. of L-amino acids and nucleic acids by fermentation of sucrose

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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MMIC	Draw Desc	Clip Img	Image
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☐ 4. Document ID: JP 05244958 A JP 3298135 B2 US 5556776 A

L4: Entry 4 of 4

File: DWPI

Sep 24, 1993

DERWENT-ACC-NO: 1993-338924

DERWENT-WEEK: 200246

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TITLE: New sucrase gene derived from Coryneform sp. - has restriction enzyme cleaving site, and encodes sucrase activity

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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MMIC	Draw Desc	Image
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5556776

4

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PASSWORD:

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NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 SEP 09 CA/CAPLUS records now contain indexing from 1907 to the  
present  
NEWS 4 Jul 15 Data from 1960-1976 added to RDISCLOSURE  
NEWS 5 Jul 21 Identification of STN records implemented  
NEWS 6 Jul 21 Polymer class term count added to REGISTRY  
NEWS 7 Jul 22 INPADOC: Basic index (/BI) enhanced; Simultaneous Left and  
Right Truncation available  
NEWS 8 AUG 05 New pricing for EUROPATFULL and PCTFULL effective  
August 1, 2003  
NEWS 9 AUG 13 Field Availability (/FA) field enhanced in BEILSTEIN  
NEWS 10 AUG 15 PATDPAFULL: one FREE connect hour, per account, in  
September 2003  
NEWS 11 AUG 15 PCTGEN: one FREE connect hour, per account, in  
September 2003  
NEWS 12 AUG 15 RDISCLOSURE: one FREE connect hour, per account, in  
September 2003  
NEWS 13 AUG 15 TEMA: one FREE connect hour, per account, in  
September 2003  
NEWS 14 AUG 18 Data available for download as a PDF in RDISCLOSURE  
NEWS 15 AUG 18 Simultaneous left and right truncation added to PASCAL  
NEWS 16 AUG 18 FROSTI and KOSMET enhanced with Simultaneous Left and Right  
Truncation  
NEWS 17 AUG 18 Simultaneous left and right truncation added to ANABSTR  
NEWS 18 SEP 22 DIPPR file reloaded  
NEWS 19 SEP 25 INPADOC: Legal Status data to be reloaded  
NEWS 20 SEP 29 DISSABS now available on STN

NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT  
MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),  
AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003

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NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

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=> s pts (3a) ii  
L1 9200 PTS (3A) II

=> s l1 (5a) sucrose  
L2 20 L1 (5A) SUCROSE

=> dup rem l2  
PROCESSING COMPLETED FOR L2  
L3 7 DUP REM L2 (13 DUPLICATES REMOVED)

=> d 1-7

L3 ANSWER 1 OF 7 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT/ISI on STN  
AN 2001-06288 BIOTECHDS  
TI Gene encoding sucrose phosphoenolpyruvate-sugar transport system enzyme  
II obtained by cassette ligation-mediated amplification of downstream  
domain of Coryneform bacterium sucrose gene, with sucrose-binding  
activity;  
involving polymerase chain reaction  
AU Izui M; Sugimoto M; Nakamatsu T; Kurahashi O  
PA Ajinomoto  
LO Tokyo, Japan.  
PI WO 2001002584 11 Jan 2001  
AI WO 2000-JP4348 30 Jun 2000  
PRAI JP 1999-189512 2 Jul 1999  
DT Patent  
LA Japanese

OS WPI: 2001-138150 [14]

L3 ANSWER 2 OF 7 MEDLINE on STN DUPLICATE 1  
AN 2000427132 MEDLINE  
DN 20391269 PubMed ID: 10937490  
TI Analysis of a catabolic operon for sucrose transport and metabolism in  
Clostridium acetobutylicum ATCC 824.  
AU Tangney M; Mitchell W J  
CS Department of Biological Sciences, Heriot-Watt University, Riccarton,  
Edinburgh, UK.. m.tangney@hw.ac.uk  
SO JOURNAL OF MOLECULAR MICROBIOLOGY AND BIOTECHNOLOGY, (2000 Jan) 2 (1)  
71-80.  
Journal code: 100892561. ISSN: 1464-1801.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
OS GENBANK-AF205034  
EM 200009  
ED Entered STN: 20000922  
Last Updated on STN: 20030325  
Entered Medline: 20000908

L3 ANSWER 3 OF 7 MEDLINE on STN DUPLICATE 2  
AN 94114598 MEDLINE  
DN 94114598 PubMed ID: 8286440  
TI Evidence for a phosphoenolpyruvate dependent sugar-phosphotransferase  
system in the mollicute Acholeplasma florum.  
AU Navas-Castillo J; Laigret F; Hocquellet A; Chang C J; Bove J M  
CS Laboratoire de biologie cellulaire et moleculaire, Institut National de la  
Recherche Agronomique et Universite de Bordeaux II, Villenave d'Ornon,  
France.  
SO BIOCHIMIE, (1993) 75 (8) 675-9.  
Journal code: 1264604. ISSN: 0300-9084.  
CY France  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
OS GENBANK-Z19057  
EM 199402  
ED Entered STN: 19940312  
Last Updated on STN: 19940312  
Entered Medline: 19940223

L3 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1989:471946 HCAPLUS  
DN 111:71946  
TI Genetics of the phosphotransferase system of Bacillus subtilis  
AU Fouet, A.; Arnaud, M.; Klier, A.; Rapoport, G.  
CS Inst. Pasteur, Paris, 75724, Fr.  
SO FEMS Microbiology Reviews (1989), 63(1-2), 175-82  
CODEN: FMREE4; ISSN: 0168-6445  
DT Journal; General Review  
LA English

L3 ANSWER 5 OF 7 LIFESCI COPYRIGHT 2003 CSA on STN DUPLICATE 3  
AN 88:19244 LIFESCI  
TI Mechanisms of sugar transport in the rumen bacterium Selenomonas  
ruminantium .  
AU Martin, S.A.; Russell, J.B.  
CS Anim. and Dairy Sci. Dep., Livest.-Poult. Build., Univ. Georgia, Athens,  
GA 30602, USA  
SO J. GEN. MICROBIOL., (1988) vol. 134, no. 3, pp. 819-827.  
DT Journal  
FS J  
LA English  
SL English

L3 ANSWER 6 OF 7 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN  
AN 1967-09968G [00] WPIDS  
TI Stabilised nitrofurazone compns.  
DC B00 C00  
PA (ROGA) ROGAR LTD  
CYC 1  
PI CA 763930 A (196800)\*  
PRAI CA 1964-897914 19640313

L3 ANSWER 7 OF 7 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN  
AN 1966-28322F [00] WPIDS  
TI Stabilised nitrofurazone compns.  
DC B00 C00  
PA (ROGA) ROGAR LTD  
CYC 1  
PI CA 763930 A (196800)\*  
PRAI CA 1964-897914 19640313

=> d 1-7 kwic

L3 ANSWER 1 OF 7 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT/ISI on STN  
AB . . . glucose only or sucrose, and can have improved amino acid and  
nucleic acid productivity. In an example, the gene encoding  
**sucrose PTS enzyme II** was isolated from the  
chromosomal DNA of *Brevibacterium lactofermentum* AJ2036 (FERM BY-734) by  
Southern hybridization. Then, transformants with **sucrose**  
**PTS enzyme II** gene and with disruption of such gene  
were constructed for production of glucose and sucrose, indicating that  
AJ12036 produced both. . . .

L3 ANSWER 2 OF 7 MEDLINE on STN DUPLICATE 1  
AB . . . encoding the proteins of this pathway were identified from the *C.*  
*acetobutylicum* genome sequence, in the order scrAKB encoding Enzyme  
**II** of the **sucrose PTS**, fructokinase and  
**sucrose** 6-phosphate hydrolase respectively. While the pathway for  
sucrose metabolism is conserved between *C. acetobutylicum* and *C.*  
*beijerinckii*, the operons show. . . .

L3 ANSWER 3 OF 7 MEDLINE on STN DUPLICATE 2  
AB . . . but not a glucose-PTS, and that the amino acid sequence deduced  
from the DNA fragment is related to beta-glucoside and **sucrose**  
enzymes **II** of **PTS** from various bacteria.

L3 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2003 ACS on STN  
AB . . . distribution of phosphotransferase system (PTS)-sugars in *B.*  
*subtilis*, enzyme components of the PTS, and the amino acid sequences of  
three **PTS** enzymes **II** involved in **sucrose**  
metab.

L3 ANSWER 5 OF 7 LIFESCI COPYRIGHT 2003 CSA on STN DUPLICATE 3  
AB . . . phosphorylate glucose and sucrose. Glucose activity was  
constitutive, while phosphorylation of sucrose was inducible. Competition  
experiments indicated that separate phosphotransferase (**PTS**)  
enzymes **II** were present for glucose and **sucrose**, but  
it appeared that maltose was hydrolysed by an inducible extracellular  
maltase and then transported by the glucose PTS. S. . . .

L3 ANSWER 6 OF 7 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN  
AB . . .  
esp. for addn. to poultry  
drinking water.  
(II) is pref. Pluronic F-68 of av. mol. wt. 8750. Carriers  
include dextrose, lactose and **sucrose**. Typically at least 1 pt.  
(II) mixed with 20 pts. (I).

L3 ANSWER 7 OF 7 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN  
AB . . .

esp. for addn. to poultry  
drinking water.

(II) is pref. Pluronic F-68 of av. mol. wt. 8750. Carriers  
include dextrose, lactose and **sucrose**. Typically at least 1 pt.  
(II) mixed with 20 pts. (I).

=> d 3-5 ab

L3 ANSWER 3 OF 7 MEDLINE on STN DUPLICATE 2  
AB In order to confirm the presence of a phosphoenolpyruvate (PEP)-dependent  
sugar-phosphotransferase system (PTS) in the mollicute *Acholeplasma florum*  
we studied the ability of cell free extracts of this organism to  
phosphorylate glucose and/or fructose in the presence of PEP. We also  
cloned and sequenced a DNA fragment coding for a putative polypeptide  
showing significant similarity with the enzyme II of the beta-glucoside  
PTS of *Escherichia coli*. Taken together, these results show that *A florum*  
possesses a fructose-PTS, but not a glucose-PTS, and that the amino acid  
sequence deduced from the DNA fragment is related to beta-glucoside and  
**sucrose** enzymes II of PTS from various  
bacteria.

L3 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2003 ACS on STN  
AB A review with 29 refs. on the distribution of phosphotransferase system  
(PTS)-sugars in *B. subtilis*, enzyme components of the PTS, and the amino  
acid sequences of three PTS enzymes II involved in  
**sucrose** metab.

L3 ANSWER 5 OF 7 LIFESCI COPYRIGHT 2003 CSA on STN DUPLICATE 3  
AB Toluene-treated cells of *Selenomonas ruminantium* HD4 used  
phosphoenolpyruvate (PEP) to phosphorylate glucose and sucrose. Glucose  
activity was constitutive, while phosphorylation of sucrose was inducible.  
Competition experiments indicated that separate phosphotransferase (PTS)  
enzymes II were present for glucose and  
**sucrose**, but it appeared that maltose was hydrolysed by an  
inducible extracellular maltase and then transported by the glucose PTS.  
*S. ruminantium* HD4 grew more slowly on maltose than glucose or sucrose  
and the specific activity of maltase was rate limiting. The maltase was  
competitively inhibited by glucose and sucrose. Xylose was not  
phosphorylated by PEP or ATP, and its uptake was inhibited by the  
protonophore carbonyl cyanide m-chlorophenylhydrazone (CCCP), and by  
chlorhexidine diacetate. The absence of PEP-dependent phosphorylation and  
the effects of CCCP suggested that xylose was transported by an active  
transport mechanism.

=>  
=> dis his

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FILE 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS,  
NTIS, ESBIODBASE, BIOTECHNO, WPIDS' ENTERED AT 21:07:27 ON 30 SEP 2003

L1 9200 S PTS (3A) II  
L2 20 S L1 (5A) SUCROSE  
L3 7 DUP REM L2 (13 DUPLICATES REMOVED)

=> log h

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
62.77	62.98

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-1.30	-1.30

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## Search in ENZYME for: pts ii

Release 33, September 2003, and updates up to 28-Sep-2003

Please choose one of the following entries:

2.7.1.69

Protein-N(pi)-phosphohistidine-sugar phosphotransferase.

(AN: Enzyme II of the phosphotransferase system.

PTS permease.

PEP-sugar phosphotransferase enzyme II.)

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